

Application Serial No. 10/669,913
Reply to Office Action of May 4, 2006

PATENT
Docket: CU-3369

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Amendments To The Claims

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The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently amended) A liquid crystal display device comprising:

an analog voltage signal generator for storing an input synchronous signal and a plurality of input digital data signal signals in response to a write enable signal, and converting the stored digital data signal signals into a plurality of analog voltage signal pairs in response to an output enable signal;

a plurality of reference voltage generators for dividing a boosted source voltage according to the analog voltage signal pairs from the analog voltage signal generator to generate a plurality of reference voltages; and

a source driver integrated circuit for receiving the plurality of reference voltages from the plurality of reference voltage generators,

wherein a digital/analog converter of the analog voltage signal generator changes a reference voltage value and outputs a changed value reference voltage value to the reference voltage generators, thus to thereby change changing a contrast ratio a range of a contrast ratio according to the changed reference voltage values when a command to change changing a reference voltage value is transferred to the digital/analog converter.

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2. (Currently amended) A liquid crystal display device as claimed in claim 1, wherein the analog voltage signal generator includes:

a data storage section for storing the input synchronous signal and the plurality of input digital data signals in response to the write enable signal;
the digital/analog converter for converting the plurality of input digital data signals stored in the data storage section into a plurality of analog signals in response to the input synchronous signal when the output enable signal is generated; and
a buffer amplifier for amplifying the plurality of input analog signals and outputting the plurality of analog voltage signal pairs.

3. (Original) A liquid crystal display device as claimed in claim 2, wherein the data storage section stores a fixed reference voltage signal pair according to voltage-transmission factor curve feature, and the digital/analog converter changes the fixed reference voltage signal pair stored in the storage section in response to an external reference voltage change command and outputs a changed reference voltage.

4. (Original) A liquid crystal display device as claimed in claim 1, wherein the plurality of reference voltage generators include a plurality of resistors connected to each other in series between a power supply terminal and a ground terminal for generating the plurality of reference voltages.